Summary Report of Purple Loosestrife Workshop

Spooner, Wisconsin August 29-30, 2003

Joy Marburger, Research Coordinator Great Lakes Research and Education Center Indiana Dunes National Lakeshore Porter, IN 46304

Goals of the Workshop

The goals of the two-day Purple Loosestrife Workshop were

- To foster interagency partnerships with Great Lakes National Parks in providing research information and developing survey and control methods;
- To provide educational and outreach tools for grades 6-12 teachers and volunteers about the impacts invasive species, specifically purple loosestrife, have on wetland habitats.

Description

Organization of the Purple Loosestrife Workshop was initiated in February 2003. The workshop was organized entirely through electronic mail, telephone contacts, and teleconferences with researchers and managers who were presenting information at the workshop. Registration forms, public outreach fliers, and media announcements to teachers and the public were produced and distributed by the National Park Service and Wisconsin Wetlands Association. Much of the contact information was distributed electronically. Registration and media information developed by the GLREC are presented in Appendices 1 and 2.

The workshop was held in Spooner, Wisconsin in order to conduct on-site demonstrations and hands-on activities related to survey techniques and biological control methods. The location facilitated participation of individuals from three states (IN, IL, WI) and from six federal and state organizations. The latter included National Park Service, U.S. Geological Survey, Illinois-Indiana Sea Grant, Great Lakes Indian Fish and Wildlife Commission, University of Wisconsin, Wisconsin Department of Natural Resources, and Wisconsin Wetlands Association. In addition to describing their perspectives on purple loosestrife biology and control, presenters provided survey data sheets, displays, educational materials, field supplies to raise purple loosestrife beetles, and contact information for networking purposes. Participants completed a survey form to determine the success of the workshop in meeting the stated goals. Workshop description, outcome, and website links (Appendix 3) will be placed on the National Park Service's web site.

Purple Loosestrife Workshop Program

The workshop program included speakers representing national, state, and local organizations concerned with control of expanding population purple loosestrife on a regional level. An abbreviated program is described below.

August 29, 2003: Research and Monitoring Methods

9:00 - 9:30 AM: Joy Marburger, Research Coordinator, Great Lakes Research and Education Center, Indiana Dunes National Lakeshore, National Park Service, Porter, IN.

Introduction: Purple Scourge of North American Wetlands

9:30 -10:15 AM: Beth Middleton, Research Wetland Ecologist, National Wetlands Research Center, U.S. Geological Survey, Lafayette, LA.

Overview of USGS Purple Loosestrife Research and Plant Survey Techniques

10:15 -10:30 AM: Break

10:30 -10:50 AM: Robin Maercklein, Biologist, St. Croix National Scenic Riverway, National Park Service, St. Croix Falls, WI.

Control Measures (Herbicides, Biocontrol, IPM) and Concerns about Control of Purple Loosestrife in Public Lands

10:50 -12:15 AM: Brock Woods, Loosestrife Control Coordinator, Wisconsin Department of Natural Resources, Madison, WI.

Demonstration of Beetle Rearing and Application for Purple Loosestrife Control

12:15 -1:00 PM: Lunch

1:00 - 2:30 PM: (indoors) Beth Middleton and Brock Woods (vegetation and beetle surveys)

- How to Survey Purple Loosestrife to Determine its Distribution and Abundance
- Monitoring the Results of Bio-control: How Effective are Beetles in Purple Loosestrife Control?

2:30 - 5:00 PM: (walk to site for field exercises, dependent on weather) Field exercises will show methods of data collection

August 30, 2003: Management and Educational Issues

8:30 - 8:45 AM: Joy Marburger

Introduction: What Can We Do to Inform and Educate the Public about the Necessity to Control Purple Loosestrife?

8:45 -10:00 AM: Derek Strohl

Conducting a Purple Loosestrife Survey in Your Neighborhood, Watershed, or Region

Miles Falck, Wildlife Biologist, Biological Services Division, Great Lakes Indian Fish and Wildlife Commission, Odanah, WI.

Mapping Purple Loosestrife and Beetle Populations as a Tool for Purple Loosestrife Control

10:00 -10:30 AM: Break (View displays of map products)

10:30 -11:00 AM: Brock Woods, Wisconsin Purple Loosestrife Coordinator, Wisconsin Department of Natural Resources, Madison, WI.

- The Importance of, and Techniques for, Educating and Involving the Public, Especially Teachers and their Students, in Controlling Invasive Species
- Beetle Smorgasbord-Start-up (Activity # 7 from Wisconsin's, See Cella Chow for Grades 7 12).

11:00 AM -12:00 PM: (Display of educational materials on purple loosestrife; samples for public)

12:00 -1:00 PM: Lunch

1:00 - 2:15 PM: Wendy Smith, Education Coordinator, Great Lakes Research and Education Center, Indiana Dunes National Lakeshore, National Park Service, Porter, IN.

- Introduction to Educational Activities
- The Wetland Relationship Game: The Purple Loosestrife Cooperators Handbook (from Michigan State University)

Robin Goettel, Communications Coordinator, Illinois-Indiana Sea Grant College Program, University of Illinois, Urbana, IL.

- Educational Packages and Public Outreach Materials Sponsored by Sea Grant
- The Purple Problem (From Sea Grant's Exotic Aquatics on the Move)
- Arrest that Invader! Exhibit
- Invasive Aquatic Plants Brochure

Brock Woods, Completion of the Smorgasbord Activity from Wisconsin DNR's See Cella Chow

2:15 - 2:30 PM: Break

2:30 - 3:15 PM: Wendy Smith Small Group Activity Summaries

3:15 - 4:00 PM: Panel Break-out Discussion, Evaluation of Workshop

Expenditures

The workshop expenses were originally budgeted at \$5,000.00. Actual expenses were \$2,702.00. Below is a description of budget items and costs.

Purple Loosestrife Workshop Expenditures		2003			
Item No.	Item	Unit cost	No.min	No. Iines	Total cost
1	Binders	\$4.80			\$240.00
2	4 Teleconference Calls	\$0.08	360	25	\$720.00
3	Travel for 2 GLREC Coordinators	\$325.00			\$650.00
4	Lodging for Sea Grant Presenter	\$72.00			\$72.00
5	Organizational Costs	\$608.20			\$608.00
6	Invited Research Scientist (Speaker) Travel Costs	\$652.00			\$652.00
7	In-kind Contributions				\$7,578.00
	Total				\$10,520.00

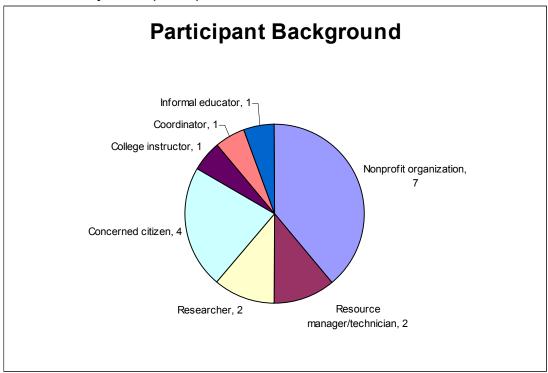
Cost per person (28 people) attending the workshop was approximately \$375.00. Several presenters provided no-cost materials, such as educational packets and materials for establishing beetle rearing enclosures.

Survey Results

The survey presented at the workshop is described below with responses from 13 of the 20 participants.

What is your background? (indicate what agency or organization)				
administrator	college instructor			
concerned citizen	extension agent			
high school teacher	K-8 teacher			
non-profit organization	researcher			
resource manager	other			

Response: (more than 13 responses occurred because more than one category was chosen by some participants.



2. What did you like most about the workshop?

Response:

- The spectrum of topics and presenters; kudos to all of them for work and efforts to share information (thanks for all your passion)
- Beth's getting people involved in a real scientific project
- Addressing the issues surrounding changing people's awareness and concern
- Conducting a multi-state and somewhat international approach due to Beth's work
- Great interaction of the speakers and participants from diverse areas; flow of ideas among groups; helped highlight communication issues
- Lots of speakers with lots of topics
- Hands-on site visit
- Lots of great hand-out materials, lots of practical information, curriculum materials
- Convenience of time and place; liked the location
- Purple loosestrife games were great
- No fees to attend, but willing to pay a small fee for materials and food

- Mapping information; Derek Strohl's (GLIFWC) GIS mapping demonstration
- Discussion of all three control methods (mechanical, chemical, biological) for invasive plant species
- Brock Wood's enthusiastic delivery of hands-on biological control methods
- Beth Middleton's survey discussion and overview of her research
- Creative presentation (use of puppet) by Robin Maercklein
- Great networking opportunity
- 3. What did you least like about the workshop? How can it be improved?

Response:

- A lot of standing around at both stations during the field exercises
- Desired more structured approach; a lot of non-context interruptions and soap boxing; controversial discussions could be deferred until the end
- Brock Wood's session on second day could have been more planned
- More time spent on conducting purple loosestrife survey, entering and evaluating data
- Need more time for lunch break
- Workshop provided a different perspective than before attending workshop; still uncomfortable with control methods
- Digressions from topics; off on tangents not included in agenda
- Need more time for discussions
- Having workshop on Labor Day Weekend
- More publicity to middle and high school teachers needed
- The room was too cold
- Need more table top exhibits; include more projects (posters) on research and management
- 4. If you are a resource manager or extension agent, have you encountered any roadblocks in implementing purple loosestrife control programs? What were they?

Response:

- Manpower
- Lack of awareness among the public on impacts of exotics
- Fear of introducing non-native beetles to control purple loosestrife
- 5. If you are an educator, what problems did you have in implementing educational activities related to purple loosestrife into your curriculum?

Response:

- Need audiences who want to learn about the exotic plants issue
- Getting kids out in the field, especially at high school level, takes time and money that schools often don't have
- Inclusion of programs into an already crowded schedule of activities
- Awareness of clients
- 6. Were the workshop materials and hands-on activities appropriate for your needs?

Response:

- Well-done
- Great field work exercises
- Monitoring exercises were appropriate
- Liked the Educators and 4-H Manuals
- Liked the website contacts and resource materials
- Liked "See Cella Chow", Wisconsin DNR and Wisconsin Wetlands Association publications
- Would add a page identifying each participant because all the participants are the best resource; it can help create a network
- 7. Did you learn anything new from the workshop presentations?
 - Collectively learned a little bit about a lot of topics. Everything added to the knowledge base
 - Great DNR (GLIFWC) mapping tools
 - Really liked Beth's presentation on Purple Loosestrife research
- 8. Would you recommend this workshop to others? What groups?

Yes to part one. Groups that were suggested:

- Anyone involved with land management
- Lake associations
- Wisconsin River Alliance
- Middle and high school teachers, public and private schools
- Resource managers
- Youth group leaders
- Environmental action groups
- Retired senior citizens
- Prison wardens (abundant workforce)
- 4-H and other youth groups
- Garden clubs

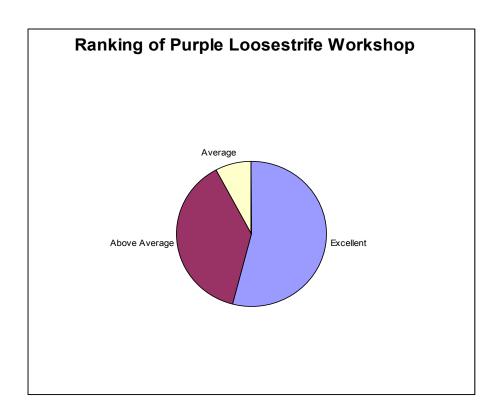
- Botanical gardens
- College students
- Landscape committees from church groups
- Friends of parks groups
- Hunting clubs
- Watershed action committees
- 9. Would the format of the workshop be appropriate to conduct for other exotic plant and animal species?

Response: Yes, the workshop can spearhead thinking about less obvious or elegant invasive species.

10. Overall rating of the workshop: (check)

Response: 92% ranked the workshop as excellent or above average

Excellent	7
Above Average	5
Average	1
Below Average	0
Poor	0



Overall Rating of Workshop

This was the first interagency, multi-park workshop sponsored by the GLREC. As a whole, the workshop was very well received by both the speakers and participants. The amount of time and money required to organize the workshop was reduced through use of teleconferencing and email communication with participating speakers. Actual expenditures, \$2,702, were less than the \$5,000 budgeted amount.

The USGS researcher, Beth Middleton, found the workshop very useful for her needs. She emphasized the importance of citizen participation in monitoring purple loosestrife populations. Her main goal was to network with various agencies to enlist the help of volunteers in conducting her international purple loosestrife research, which includes Turkey, Checklosovakia, and several states in the U.S.

The first day progressed more smoothly than the second day. One-third of the participants left after the first day, which focused on the background information and survey activities. Since the workshop was held on Labor Day weekend, participants may have left on the second day due to other weekend commitments (one participant indicated this). Since there were no K-12 teachers attending, those that left after one day may not have had an interest in the educational activities, or may have already been familiar with them. Since the advertising

and media releases were distributed after school recessed for the summer, teachers were less likely to be aware of the workshop. Better organization of the exercises on the second day could have reduced the amount of time required to a half day, instead of a full day.

Overall, the workshop accomplished the goals of:

- networking Great Lakes National Park staff on a critical natural resource issue, exotic plant invasions in public and adjacent lands;
- increasing partnerships with other agencies in conducting the workshop, increasing public awareness of current research on the species, and
- providing educational information about survey methods, impacts of purple loosestrife on the wetland habitats, and the role of biological control methods in reducing expansion of purple loosestrife.

Suggested Improvements for a future workshop of this nature should include:

- Better media coverage distributed with sufficient advance time to reach target audiences;
- Conduct the workshop on one day, rather than two. Start the workshop earlier, and end it later to include both the field and educational activities;
- Conduct the workshop at a time when more people can attend.

APPENDIX 1: Brief Description and Registration Form

Purple Loosestrife Workshop

August 29-30, 2003

Badgerland Civic Center Spooner, Wisconsin

Purple loosestrife is an exotic plant that is rapidly spreading across North America, outcompeting native plants and seriously threatening the biodiversity of our wetlands and riverways. This workshop will bring together formal and non-formal educators, researchers, resource managers, and community volunteers to share



information, pool ideas, and forge strategies to control this invasive plant. Participants will learn about the biology and control of purple loosestrife, will be trained in the Wisconsin Wetlands Association's Purple Loosestrife Monitoring Program, will learn how to become involved with an international research project while working in their own communities, and will experience educational activities that can be utilized with school groups, scout groups and community organizations. Hands-on citizen science projects featuring monitoring, mapping, biological control, and research will provide excellent opportunities for service learning.

The workshop is free of charge, and is sponsored by the Great Lakes Research and Education Center and the National Park Service in partnership with the Wisconsin Wetlands Association, the USGS National Wetlands Research Center, Illinois-Indiana Sea Grant, the Wisconsin DNR, and the Great Lakes Indian Fish and Wildlife Commission.

Workshop Overview

Friday, August 29

9:00 a.m. - 4:30 p.m.

- An introduction to the problem
- USGS research, monitoring methods and data collection
- Purple loosestrife control measures
- Future research direction and how you can get involved
- Wisconsin Wetlands Association volunteer monitoring and mapping

Saturday, August 30 9:00 a.m. – 3;30 p.m.

- Biological control methods on public lands
- Map products as educational tools
- The role of public education, techniques, and teacher trainings
- Hands-on purple loosestrife exhibits and activities
- Educational packages
- Panel discussion

Great Lakes Research & Education Center * Indiana Dunes National Lakeshore Wendy W Smith@nps.gov * (219)926-7561 x 332

Purple Loosestrife Workshop

August 29-30, 2003

Registration Form

Name:			
Address:			
City:	State:	Zip:	
e-mail:			-
secondary teacher youth group leader interpreter/naturalist I plan to stay at the I would like to see	y: resource/land manage community group mer potential volunteer cit home school educator ne Best Western Hotel in Spothare a room. Please try to lo camping. Please send me a	agency person college studen other: cooner, WI. (See costs below cate a roommate for me.	nel t
Please return this portion Research and Education	on with a \$10 <u>refundable</u> de 1 Center.	eposit check made payable	e to the Great Lakes
	Great Lakes Research and Indiana Dunes National La 1100 N. Mineral Springs F Porter, IN 46304	keshore	
******	********	*******	*****
	Detach and retain this p	ortion for your records.	

A block of hotel rooms has been reserved at the Best Western Hotel in Spooner, Wisconsin. Rates are \$109/room. To reserve a room, phone (715)635-9770 and be sure to mention that you are with the Wisconsin Wetlands Association group. Rooms must be reserved by July 29th to obtain the discounted rate. There are also campgrounds in the area. (To obtain a list of campgrounds, please check above.)

Dress appropriately for field activities. Bring rubber boots if you can.

Great Lakes Research & Education Center , Indiana Dunes National Lakeshore Wendy_W_Smith@nps.gov * (219)926- 7561 x 332

Appendix 2: Media Release

FOR IMMEDIATE RELEASE July 25, 2003

Joy Marburger (219) 926-7561 ext. 344

Purple Loosestrife Workshop Coming to Spooner, Wisconsin

Purple loosestrife is an exotic plant that is rapidly spreading across North America, replacing native plants and seriously threatening the biodiversity of our wetlands and rivers. The workshop will bring together formal and non-formal educators, researchers, resource managers, and community volunteers to share information, share ideas, and forge strategies to control this invasive plant.

On Friday and Saturday, August 29th and 30th you are invited to attend a Purple Loosestrife Workshop at the Northwest Sports Complex in Spooner, Wisconsin. The two-day event will begin at 9:00 a.m. on Friday and run through 4:00 p.m. on Saturday.

Participants will learn about the biology and control of purple loosestrife, will be trained in the Wisconsin Wetlands Association's Purple Loosestrife Monitoring Program, will learn how to become involved with international research projects that have local applications, and will learn about educational activities for school groups, scouts, and community organizations. Some of the activities include monitoring, mapping, biological control, and research that will provide excellent opportunities for hands-on volunteer participation.

The workshop is free of charge. Pre-registration and a refundable deposit of \$10 are required. Interested persons are encouraged to register before July 31st as a limited number of spaces are available. The official registration deadline is August 15th. For further registration information (lodging, etc.), contact Joy Marburger at (219)926-7561 ext. 344, or email Joy_Marburger@nps.gov.

Friday's activities will present an introduction to purple loosestrife biology and control, USGS research, monitoring methods and data collection, purple loosestrife control measures, and the Wisconsin Wetlands Association volunteer monitoring and mapping program. Saturday's agenda includes the use of map products as educational tools, the role of public education and teacher training, hands-on purple loosestrife activities and exhibits, and a discussion of future management directions.

The workshop is organized by the National Park Service's Great Lakes Research and Education Center in partnership with the Great Lakes Indian Fish and Wildlife Commission, Illinois-Indiana Sea Grant College Program, St. Croix National Scenic Riverway, the USGS National Wetlands Research Center, the Wisconsin DNR, and the Wisconsin Wetlands Association.

- NPS -

Appendix 3: Web Sites Provided to Participants for Further Information

Invasive Plants Information:

<u>The Control of Invasive Non-native Plants:</u> A Guide for Homeowners and Gardeners in the Mid-Atlantic Region (internet document)

www.aphis.usda.gov/npb/statenw.html regulates importation of plants and animals at the US border

<u>www.dnr.state.wi.us/org/land/er/invasive/factsheets/loose.htm</u> has numerous links (see below)

<u>www.invasivespecies.gov</u> is a clearinghouse of information from the federal government

<u>www.plants.usda.gov</u> is a database containing standardized information about plants including identification, distribution and growth information. A list of plants considered invasive can be searched by common or scientific name.

Wisconsin DNR Web Links for Purple Loosestrife Web Resources:

www.wiscwetlands.org provides reading, survey information, and links

www.dnv.cornell.edu/bcontrol/purple.htm Cornell University website

www.nyaes.cornell.edu/ent/biocontrol/weedfeeders/galerucella.html

Bureau of Endangered Resources and EEK!

<u>Canadian Ducks Unlimited: PL brochures</u> Includes on-line version of pamphlet: "What You Should Know, What You Can Do"

Purple Plague: The Nature Conservancy

Horticulture & Pest News Desirable Perennial or Noxious Weed?

Lythrum salicaria: WI Herbarium Species Details, Wisconsin Vascular Plants

Purple Pages Purple Loosestrife Project, Michigan State University

<u>Purple Loosestrife (Lythrum salicaria L.)</u> Vegetation Management Guideline, Illinois Natural History Survey

<u>www.inhs.uiuc.edu/chf/outreach/VMG/ploosestrife.html</u> University of Illinois <u>www.icche.org/IP_abstracts/2003/UIUC.htm</u> University of Illinois 6-week course <u>Lythrum salicaria</u> (<u>Purple Loosestrife</u>) Wildland Invasive Species Program, The Nature Conservancy

<u>Purple Loosestrife (*Lythrum salicaria*)</u> Noxious Weeds and Non-Native Plants, Colorado Weed Management Association

<u>Purple Loosestrife</u> (*Lythrum salicaria*) University of Wyoming, Purple loosestrife surveys and ways to monitor this plant's spread

Purple Loosestrife Alien Plant Working Group, Plant Conservation Alliance

Lythrum salicaria L., purple loosestrife Plant Profile, USDA PLANTS Database

Purple Loosestrife InfoCentre Manitoba Purple Loosestrife Project

<u>Purple Loosestrife Brochures</u> Purple Loosestrife InfoCentre, Manitoba Purple Loosestrife Project

<u>Invasive Exotic Plants of Canada Fact Sheet No. 4: Purple Loosestrife</u> Invasive Plants of Canada Project, National Botanical Services

Purple Loosestrife Ontario Federation of Anglers and Hunters

Saskatchewan Purple Loosestrife Eradication Project

New battle plan against purple loosestrife Newsfile July 19, 1996, University of Guelph

Purple Loosestrife - Water Management, Wisconsin DNR

Sea Grant Web Sites on Purple Loosestrife:

http://www.miseagrant.umich.edu/pp/activities.html

http://www.miseagrant.umich.edu/pp/activity_ten.htm

http://www.inhs.uiuc.edu/cee/loosestrife/materials_outline.html

http://www.inhs.uiuc.edu/cee/loosestrife/fag.html

Other Purple Loosestrife Web Sites:

<u>www.nationalatlas.gov/atlasftp.html</u> gives map information about loosestrife locations.

<u>www.worldwildlife.org/wildworld/profiles/terrestrial/pa/pa1201_full.html</u> describes some of the European vegetation types where purple loosestrife grows.

http://www.efn.org/~ipmpa/Noxploos.html is a technical bulletin on purple loosestrife control.

Appendix 4: Photographs of Workshop



Figure 1. Volunteers in Purple Loosestrife Workshop Learn to Survey Purple Loosestrife Populations and Beetles for Biocontrol in Wisconsin.



Figure 2. USGS Researcher Demonstrates Plant Survey Methods During Purple Loosestrife Workshop.



Figure 3. Purple Loosestrife Workshop Participants Count Loosestrife Plants in their Created Model Wetland.